

Application No.: 10/525,751
Art Unit: 2624

Amendment under 37 CFR §1.116
Attorney Docket No.: 052193

REMARKS

Please reconsider the application in view of the foregoing amendments and the following remarks.

Status of Claims

Claims 1-4 are pending in the present application. Claims 1, 3 and 4 are herein amended to further distinguish them from the cited prior art. No new matter has been entered.

As to the Merits

As to the merits of this case, the Examiner sets forth the following rejections:

Claims 3-4 were rejected under 35 U.S.C. 102(b) as being unpatentable over **Kosuke et al** (Patent abstracts of Japan 63-299400, IDS).

Claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over **Kosuke et al** (Patent abstracts of Japan 63-299400, IDS) in view of **Webb et al** (UK 0010489.3, IDS).

Each of these rejections is respectfully traversed.

Claim Rejections - 35 U.S.C. §102 and 35 U.S.C. §103

Independent Claims 1, 3 and 4

Claims 1, 3 and 4 have been amended to further distinguish the claimed invention from the cited prior art; Applicants submit that cited prior art (alone or in combination) does not disclose at least the following:

operating, on the basis of the first position data of the fiducial mark 1 and the second position data of the fiducial mark 2 rotated by 180 degrees, an amount of position shift from a rotational center of the holding member to a center of the object to be held and an amount of angle shift of the object in the horizontal plane with respect to a fiducial line of the holding member,

wherein said amount of position shift and said amount of angle shift is obtained by two times image-processing, said two times image-processing includes image-processing for obtaining said first position data and said second position data.

It is to be noted that although claim 1 is drawn to method, claim 3 is drawn to computer program and claim 4 is drawn to apparatus, they recite similar subject matter as noted above.

For example, support for amended claim may be found at least on page 4, lines 21-23 of the present specification which states: "... the positional shift amount and the angular shift amount of the center of the holding member can be obtained by two times of image processing."

(underline added). Also, as noted on page 3, last paragraph of the present specification, the invention in claims 1, 3 and 4 reduces the number of image processing working and simplifies the way of correcting shifts in position and attitude of the object to be held with respect to the holding portion.

The Kosuke reference does not teach the aforesaid limitation. More specifically, the Abstract of Kosuke explicitly teaches “**A is one point in the image of a lead 3a, and its coordinates, (X1, Y1) are recognized. Subsequently, the coordinates (X2, Y2) of point A', symmetrical with A, in the image of a lead 3b after rotation of the nozzle by 180° are recognized.** If the positioning of an IC is performed with the rotation center of the nozzle being placed in the symmetry center of the lead of the IC, by correcting so that the deviational amount of A and A' becomes zero, the virtual center can be made to match the symmetry center of the IC, **so that the error of one point A of the lead can be corrected.** Then, **as to the error of the rotation center and the suction error of the IC, it is only needed that by the intaking of the image of a lead 3c by the movement of the head section from the intaking of the image of the lead 3b,** the gradient of the deviational amount of a point B of another lead from the point A' is corrected to zero, which another lead should originally be in the same direction as that moving direction.” (emphasis added).

In other words, as illustrated in drawing figure 4 and as noted above, in Kosuke, the positional shift and the angular correction is based on three times of image processing. That is,

image of lead 3a (X1, Y1), image of 3b after 180 degree rotation (X2, Y2) and then as to the error of the rotation center and the suction error of the IC, the image of a lead 3c (X3, Y3) is taken by moving the head section from the intaking of the image of the lead 3b as shown in drawing 3.

In contrast, in the claimed invention, the positional shift amount and the angular shift amount of the center of the holding member can be obtained by two times of image processing, for example, on the basis of the first position data of the fiducial mark 1 and the second position data of the fiducial mark 2 which is rotated by 180 degrees, the position shift amount from the rotational center O' of the holding member to the center of the head and the angle (angular) shift amount of the object to be held, in the horizontal plane, with respect to the fiducial line of the holding member.

In view of the foregoing, Applicants submit that Kosuke does not teach or disclose at least *operating, on the basis of the first position data of the fiducial mark 1 and the second position data of the fiducial mark 2 rotated by 180 degrees, an amount of position shift from a rotational center of the holding member to a center of the object to be held and an amount of angle shift of the object in the horizontal plane with respect to a fiducial line of the holding member, wherein said amount of position shift and said amount of angle shift is obtained by two times image-processing, said two times image-processing includes image-processing for*

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obtaining said first position data and said second position data as recited in claims 1, 3 and 4.

Also, Webb does not remedy this deficit

Therefore, Applicants submit that claims 1-4 are neither anticipated nor obvious.

Therefore, Applicants request that the rejections under §102 and §103 are no longer viable and respectfully request that they be withdrawn.

Conclusion

The Claims have been shown to be allowable over the prior art. Applicants believe that this paper is responsive to each and every ground of rejection cited in the Office Action dated September 30, 2009, and respectfully request favorable action in this application. The Examiner is invited to telephone the undersigned, applicants' attorney of record, to facilitate advancement of the present application.

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If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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